



STIC Search Report

EIC 1700

STIC Database Tracking Number: 170875

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Location: REM 10D69
Art Unit : 1711
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Search Notes

Using the molecular formula for structures 2b I could find no compound which matched the structure.. The specifications say that 2b illustrates the amide linkages formed per the reaction in figure 1 and are not what is being claimed.

I did a structure search which covered 3b and also any amide or amine beta to a nitrogen in a ring. There were 2498 polyamides found. Using ring identifiers for some of the nitrogen containing rings and a subset search for the polycyclic nitrogen containing ring this number was brought down to 223 polyamides with a nitrogen beta to the amide. Adding in preparation and the index term for polyamides I got 47 CA references from the 223 structures. Chemical Abstracts usually indexes polymers by the starting monomers rather than a structural repeating unit. Therefore all the answers will show a dicarboxylic acid and a diamine with a beta nitrogen in a heterocyclic ring as the starting monomers in a polymer.

As the applicant was NOT indexed with any registry numbers/structures I also did a text search of the concept and ended up with 6 more answers including the applicant.

If you have any questions please call me.

L74 198 SEA FILE=HCAPLUS ABB=ON L73
 L75 125 SEA FILE=HCAPLUS ABB=ON L74 (L) PREP/RL
 L76 2 SEA FILE=HCAPLUS ABB=ON L75 AND BETA
 L77 93705 SEA FILE=HCAPLUS ABB=ON POLYAMIDES/IT
 L78 17976 SEA FILE=HCAPLUS ABB=ON L77 (L) PREP/RL
 L79 42 SEA FILE=HCAPLUS ABB=ON L75 AND L78
 L80 47 SEA FILE=HCAPLUS ABB=ON L76 OR L79 OR L23

*47 CA references limited to
preparation of polyamides*

=> d 180 1-47 bib abs ind hitstr

L80 ANSWER 1 OF 47 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2005:904118 HCAPLUS
 DN 143:230717
 TI pH-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery
 IN Bae, You Han; Na, Kun; Lee, Eun Seung
 PA University of Utah Research Foundation, USA
 SO U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U.S. Ser. No. 640,739.
 CODEN: USXXCO

DT Patent
 LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005186263	A1	20050825	US 2004-846487	20040514
	US 2005070721	A1	20050331	US 2003-640739	20030519
PRAI	US 2002-381970P	P	20020519		
	US 2003-640739	A2	20030519		

AB Method for treating a warm-blooded animal comprises (a) mixing the drug with mixed polymeric micelles comprising (i) poly(L-histidine)-poly(ethylene glycol) block copolymer and poly(L-lactic acid)-poly(ethylene glycol) block copolymer, (ii) poly(L-histidine)-poly(ethylene glycol) block copolymer-folate and poly(L-lactic acid)-poly(ethylene glycol) block copolymer, (iii) poly(L-histidine)-poly(ethylene glycol) block copolymer and poly(L-lactic acid)-poly(ethylene glycol) block copolymer-folate, or (iv) poly(L-histidine)-poly(ethylene glycol) block copolymer-folate and poly(L-lactic acid)-poly(ethylene glycol) block copolymer-folate, and (b) administering the drug-loaded mixed micelles to the animal wherein the drug-loaded mixed micelles are stable in blood and release the drug in acidic conditions. Poly(L-histidine) (MW 5,000)-poly(ethylene glycol) (MW 2,000) (polyHis5K-b-PEG2K) 20 mg in DMSO (20 mL) was dialyzed against borate buffer solution at pH 8.0 for 24 h and freeze-dried to give polymeric micelles powder (yield 90-93%) showing stable at pH 8.0 for 2 days, but soluble at pH 5.0 as no CMC can be detected.

IC ICM A61K031-41

ICS A01N043-64; A61K009-127

INCL 424450000; 514359000

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 63

ST histidine lactic acid ethylene glycol block copolymer; micelle polymeric pH sensitive drug delivery

IT Polyoxyalkylenes, uses

RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(block, triblock; ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)

IT Drug delivery systems

- (carriers; ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT Drug delivery systems
(micelles; ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT Antitumor agents
(ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT Polyesters, uses
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyamide-, block; ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT Polyoxyalkylenes, uses
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-, block; ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT Polyamides, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(polyoxyalkylene-, block; ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT Polyesters, uses
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene-, block; ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT 25316-40-9, Adriamycin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT **863016-91-5DP**, deprotected products
RL: BSU (Biological study, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(ph-sensitive polymeric micelles based on poly(L-histidine)-poly(ethylene glycol) block copolymer for drug delivery)
- IT 59-30-3DP, Folic acid, reaction products with poly(L-lactic acid-b-ethylene oxide) and ethylene diamine 107-15-3DP, Ethylene diamine, reaction products with poly(L-lactic acid-b-ethylene oxide) and folic acid 773850-98-9DP, Ethylene oxide-L-lactic acid diblock copolymer, reaction products with folic acid and ethylene diamine
RL: BSU (Biological study, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ph-sensitive polymeric micelles based on poly(L-histidine)-

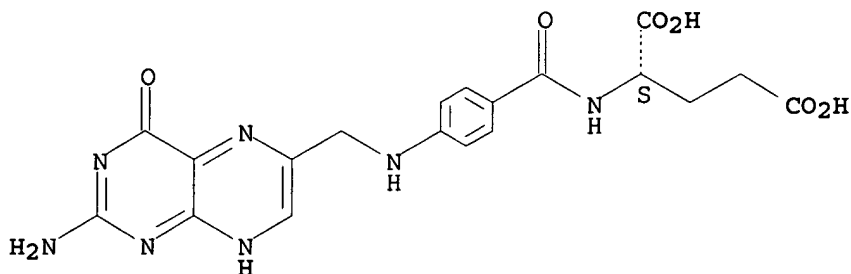
poly(ethylene glycol) block copolymer for drug delivery)
IT 862901-45-9DP, deprotected products
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ph-sensitive polymeric micelles based on poly(L-histidine) - poly(ethylene glycol) block copolymer for drug delivery)
IT 14997-58-1P 35110-24-8P 35126-81-9P 47444-62-2P 63013-46-7P 862901-45-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(ph-sensitive polymeric micelles based on poly(L-histidine) - poly(ethylene glycol) block copolymer for drug delivery)
IT 773850-98-9, Ethylene oxide-L-lactic acid diblock copolymer
RL: POF (Polymer in formulation); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(ph-sensitive polymeric micelles based on poly(L-histidine) - poly(ethylene glycol) block copolymer for drug delivery)
IT 34346-01-5, DL-Lactic acid-glycolic acid copolymer 691397-13-4, Ethylene oxide-propylene oxide triblock copolymer
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ph-sensitive polymeric micelles based on poly(L-histidine) - poly(ethylene glycol) block copolymer for drug delivery)
IT 70-34-8, 2,4-Dinitrofluorobenzene 501-53-1, Benzyl chloroformate 5934-29-2, L-Histidine monohydrochloride monohydrate 7719-09-7, Thionyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(ph-sensitive polymeric micelles based on poly(L-histidine) - poly(ethylene glycol) block copolymer for drug delivery)
IT 863016-91-5DP, deprotected products
RL: BSU (Biological study, unclassified); IMF (Industrial manufacture); POF (Polymer in formulation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ph-sensitive polymeric micelles based on poly(L-histidine) - poly(ethylene glycol) block copolymer for drug delivery)
RN 863016-91-5 HCAPLUS
CN L-Histidine, 1-(2,4-dinitrophenyl)-, polymer with oxirane, 5-ester with N-[4-[[[(2-amino-1,4-dihydro-4-oxo-6-pteridinyl)methyl]amino]benzoyl]]-L-glutamic acid (1:1), diblock (9CI) (CA INDEX NAME)

CM 1

CRN 59-30-3

CMF C19 H19 N7 O6

Absolute stereochemistry.



elemental analyses and sp. rotation. Some structural characterization and phys. properties of these new optically active poly(amide-imide)s are reported.

CC 35-5 (Chemistry of Synthetic High Polymers)

ST optically active polyamide polyimide; pyromellitic diimide methionine deriv polymn arom diamine

IT Viscosity
(inherent; synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT Polymerization
(of pyromelliticdiimido dimethionine with aromatic diamines)

IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyamide-; synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyamide-polyether-; synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT Polyethers, preparation
Polysulfones, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyamide-polyimide-; synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyamide-polysulfone-; synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT Polyamides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); **PREP**
(Preparation)
(polyether-polyimide-; synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT Polyamides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); **PREP**
(Preparation)
(polyimide-; synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT Polyamides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); **PREP**
(Preparation)
(polyimide-polysulfone-; synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT Optical activity
Solubility
Thermal stability
(synthesis and characterization of optically active poly(amide-imide)s via direct amidation)

IT 63-68-3, L-Methionine, reactions 89-32-7, Pyromellitic dianhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of monomer for synthesis of optically active polyamide-polyimides)

IT 144443-38-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; for synthesis of optically active polyamide-polyimides)

IT 865349-71-9P 865349-72-0P 865349-73-1P 865349-74-2P
865349-75-3P 865349-76-4P 865349-77-5P 865349-78-6P
865349-79-7P 865349-80-0P 865349-81-1P 865349-82-2P
RL: PRP (Properties); SPN (Synthetic preparation); **PREP**